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09/13/2004

Ralf Hobmeier

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ROTHWELL, FIGG, ERNST & MANBECK, P.C.

1425 K STREET, N.W.

SUITE 800

WASHINGTON, DC 20005

EXAMINER

SHAPIRO, JEFFERY A

ART UNIT

PAPER NUMBER

3653

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 10/507,438	Applicant(s) HOBMEIER ET AL.	
	Examiner JEFFREY A. SHAPIRO	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 27-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-25, 27 and 28 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

As examples, note the following.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether or not a "bistable magnet" is required to move the diverter vane. For examination purposes, it is construed that a "bistable magnet" is optional.

4. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 10 recites the limitation "first to fourth transport paths" in line 2. There is insufficient antecedent basis for this limitation in the claim.

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6. Claims 12-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 12-14 recite several components with changing directions or codirectional directions of rotation. It is unclear with what reference these rotations are made from. It is also unclear what this transmission is connected to.

8. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 16 recites the limitations "first transmission output" in line 2 and "second and third transmission output" in line 3. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-9, 15, 17, 20-22, 24, 25, 28 and 29-31 and 33-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Saltsov et al (US 6,371,473 B1).

Regarding Claims 1 and 2, Saltsov '473 discloses a transport system having various transport paths, a diverter device (1), having a bi-directionally drivable transport path (104) between two transport path branchings, and a diverter module formed in part with elements (2, 3a, 3b and 3c) with twelve inputs/outputs, i.e, six each at each diverter (500). Note that path (104) is construed to run from the bill input/output slot at element (1) through the center of diverters (500), thus connecting several branchings.

Regarding Claim 3, note that diverter module (2, 3a, 3b and 3c) and components thereof may be removed, opened and separated, for example, as illustrated at figure 28.

Regarding Claim 4, note that diverter (500) located between (2) and (3a), with six input/outputs is connectable with diverter (500) located between (3b and 3c).

Regarding Claim 5, note figure 15, which illustrates that both diverters (500) may be coordinated so as to create a single path (104) through the diverter device.

Regarding Claim 6, note that diverter (500) is construed as having several "diverter vanes" (700, 702 and 704) as illustrated in figure 28.

Regarding Claims 7, 15 and 17, note that the diverter vanes of Saltsov are moved by a drive device, i.e., an actuator, in the form of a gear train connected to a motor, as described at col. 8, lines 15-26.

Regarding Claims 8 and 25, Saltsov discloses an input device in the form of an input slot assembly (101). Note that elements (3a, 3b and 3c) of the diverter module are escrow devices which have the capability to store the banknotes temporarily. Saltsov also has a receiving cashbox in the form of cassette (4).

Regarding Claims 9, 22 and 28, note that Saltsov discloses both escrow elements (3a, 3b and 3c) as well as cassette (4), with transport paths leading to and from these elements, as illustrated in figure 15.

Regarding Claims 20 and 21, Saltsov discloses a banknote storage device (122) with film strip (124) wound on a spool/drum (130), driven by a motor (134), as disclosed at col. 5, lines 45-65.

Regarding Claim 24, see Saltsov, figure 18, noting that the diverter is located between escrow devices (3b and 3c).

Regarding Claim 29, Saltsov illustrates in figure 29a and at col. 9, line 25-col. 10, line 5, a direction of rotation switch over transmission with an input shaft (866) with first output shaft (870) and second output shaft (872). Note that the shafts are rotatable in either clockwise or counterclockwise direction.

Regarding Claim 30, note third transmission output shaft (868), which drives in one direction when attached to shaft (866) due to the fact that the gears of these shafts must rotate opposite to each other.

Regarding Claim 31, note figure 29, illustrating the geared couplings between said shafts.

Regarding Claim 33, note drive unit, as discussed at col. 10, lines 1-5 of Saltsov.

Regarding Claim 34, note that gear (872) is connected to unidirectional path (850) if it is rotated in one direction and that the gear (870) is connected to the bi-directional device.

Regarding Claim 35, note again that said apparatus of Saltsov is for depositing banknotes. All components are "connectable". Note that the term "connectable" is not connected.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 10-14, 16 and 27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov '473 in view of Salstov (US 7,051,926 B2).

Saltsov '473 discloses the banknote apparatus as described above.

Regarding Claim 10, Saltsov '473 does not expressly disclose, but Saltsov '926 discloses a diverter (100a) having five separate transport paths about the diverter, as

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illustrated in figure 3, with diverter (100a) having five separate paths and ten separate input/outputs.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a diverter having five separate transport paths and ten separate input/outputs for the purpose of directing banknotes to more storage and processing devices, thus increasing the capacity of the banknote apparatus.

Regarding Claim 11, it would have been obvious to one of ordinary skill to have connected any of the five paths of Saltsov '926 with any of the ten input/outputs of the diverter (100a) so as to direct bills to any particular path as required.

Regarding Claims 12-14, note that the actuator discussed in reference to Claim 7, above, is construed to have a transmission in the form of a gear train, connected to a motor, as described at col. 8, lines 15-26 of Saltsov '473.

Note that it would have been obvious to one of ordinary skill in the art to have added as many outputs as required so as to drive several items with a single drive input. Note also that it would have been obvious to include a freewheel, such as a clutch, as recited in Saltsov '473 at col. 5, lines 54-65, for the purpose of allowing the transmission to engage and disengage shafts and gears from the driving mechanisms. Note that these are well-known techniques of transmitting power through mechanical means, as illustrated by Saltsov '473.

Regarding Claim 16, note that it would have been obvious to engage and disengage the driving motor via at least one freewheel/clutch so as to selectively drive various components of Saltsov '473's banknote apparatus.

Regarding Claim 27, note that it would have been obvious to have used belts to connect the drive transmission to the other driven components such as the diverters of Saltsov's apparatus, as again, this is a well-known technique of transmitting drive power from a driving component to a driven component. Note figure 14, for example, which illustrates such belts (233).

Regarding Claim 32, official notice is taken that it would have been obvious to connect flywheels to any particular output transmission in order to drive another component.

15. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov '473 in view of Mennie et al (US 6,241,069).

Saltsov '473 discloses the banknote apparatus as described above.

Regarding Claims 18 and 19, note that Saltsov '473 discloses at col. 2, lines 7-12, that a controller controls all "modular components" so as to transport banknotes into any of the escrow devices (3a, 3b, 3c).

Saltsov '473 does not expressly disclose, but Menne discloses setting user specific defaults, i.e., user defined keys, for the purpose of customizing operation of a banknote handling apparatus at col. 15, line 35-col. 16, line 25.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated user-defined defaults for the purpose of customizing the operation of Saltsov's banknote handling apparatus.

16. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov '473 in view of Ross (US 6,540,136 B1).

Saltsov '473 discloses the banknote apparatus as described above.

Regarding Claim 23, note that Saltsov '473 discloses a cassette (4).

Saltsov '473 does not expressly disclose, but Ross discloses a cassette having reed switch and magnet at col. 1, lines 15-35.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated a reed switch and magnet in Saltsov's cassette, as taught by Ross, for the purpose of detecting the level of the banknotes in the cassette. .

Response to Arguments

17. Applicant's arguments filed 3/5/08 have been fully considered but they are not persuasive. Applicant asserts that the term "module" defines over the prior art.

However, this is a relative term. A module may be defined as gear components (850-870) or as component (42) or as entire component (2) of Saltsov.

18. Transport paths are clearly delineated in both Saltsov's components (42), at figure 15 and at rotating diverter illustrated near element (816) in figure 29. Transport branchings occur from this central device into the tape devices on either side. Element (816) illustrates eight (8) branchings. There are four tape devices each with its own egress/ingress path as well as a central path between the tape devices and leading upwards and below the central element (816).

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY A. SHAPIRO whose telephone number is

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(571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey A. Shapiro/
Primary Examiner, Art Unit 3653

September 30, 2007